

Appendix table 1-9

High school graduates completing advanced science and engineering courses, by student and school characteristics and subject: Selected years, 1990–2009

(Percent)

Student and school characteristic	Advanced biology <sup>a</sup>	Chemistry	Physics	Advanced environmental/earth science <sup>b</sup>	Engineering	AP/IB science <sup>c</sup>
1990 graduates	27.5	45.0	23.9	4.6	0.1	NA
2000 graduates	39.5	56.6	34.5	4.6	1.3	9.1
2005 graduates	40.4	55.8	35.5	6.4	1.5	10.8
2009 graduates	44.7	69.6	38.7	10.7	3.3	14.3
Sex						
Male	39.4	66.7	41.5	10.8	5.6	13.4
Female	49.9	72.4	35.9	10.7	1.1	15.2
Race/ethnicity <sup>d</sup>						
White	47.6	70.2	40.6	11.6	3.6	15.1
Black	38.5	65.2	28.6	10.3	3.4	6.4
Hispanic	34.6	65.7	30.9	8.4	1.9	8.9
Asian/Pacific Islander	54.7	84.7	62.8	9.1	4.5	38.3
Community type						
Urban	43.7	74.8	41.6	11.2	3.7	16.8
Suburban	46.0	74.2	46.2	9.4	3.9	17.5
Rural	42.9	59.5	28.8	14.3	2.0	8.8
School Size (enrollment)						
Small (1–499)	43.4	65.6	33.8	7.8	1.8	5.4
Medium (500–1,999)	45.8	68.8	38.7	10.5	3.9	15.5
Large (≥2,000)	42.5	74.6	43.1	12.9	2.9	16.0
School poverty rate <sup>e</sup>						
Very low	48.3	77.4	52.7	10.3	4.4	24.9
Low	46.3	72.9	48.4	13.5	4.6	18.1
Medium	43.8	64.6	29.7	9.5	2.9	11.0
High	38.9	66.0	30.7	8.9	2.1	8.9

NA = Not available

AP = Advanced Placement; IB = International Baccalaureate

<sup>a</sup>"Advanced biology" includes AP/IB biology, physiology, anatomy, and genetics.<sup>b</sup>"Advanced environmental and earth sciences" includes AP/IB environmental sciences, college preparatory earth science, and various geology courses.<sup>c</sup>AP/IB courses are reported separately in this column but also included in other columns. For example, "Physics" includes any physics course, including AP physics, and "Chemistry" includes any chemistry, including AP chemistry. AP/IB science courses were not coded separately in the 1990 High School Transcript Study and therefore cannot be reported for that year.<sup>d</sup>American Indian/Alaska Native students are included in the total but not shown separately due to small sample sizes.<sup>e</sup>School poverty rate is defined by the percentage of students eligible for national free/reduced-priced lunch program: very low = ≤5%, low = 6%–25%, medium = 26%–50%, and high ≥ 51%.

SOURCE: National Science Foundation, National Center for Science and Engineering Statistics, special tabulations (2011) of National Assessment of Educational Progress 1990, 2000, 2005, and 2009 High School Transcript Studies, National Center for Education Statistics.